Strands

The strands are: Nature of Science, Science as Inquiry, Science and Technology, Science in Personal and Social Perspectives. They provide the context for teaching of the content Goals and Objectives.

Nature of Science

This strand includes the following sections: Science as a Human Endeavor, Historical Perspectives, and the Nature of Scientific Knowledge. These sections are designed to help students understand the human dimensions of science, the nature of scientific thought, and the role of science in society. Biology is rich in examples of science as a human endeavor, historical perspectives on the development of scientific knowledge, and the nature and role of scientific knowledge.

Strands	Ideas for integrating these strands
Science as a Human Endeavor Intellectual honesty and an ethical tradition are hallmarks of the practice of science. The practice is rooted in accurate data reporting, peer review, and making findings public. This aspect of the nature of science can be taught by designing instruction that encourages students to work in groups, design investigations, formulate hypotheses, collect data, reach conclusions, and present their findings to their classmates. The content studied in biology provides an opportunity to present science as the basis for medicine, ecology, forensics, biotechnology, and environmental studies. The diverse biology content allows for looking at science as a vocation. Scientist, artist, and technician are just a few of the many careers in which a biology background is necessary. Perhaps the most important aspect of this strand is that science is an integral part of society and is therefore relevant to students' lives.	• Include examples of both individual and team contributions to the field of biology. • Design inquiry activities in which all students to collect data and report their finding to their peers for review. • Debate whether scientific peer review process is adequate to trust scientists' information in making policy decisions. • Assign students to investigate the biology knowledge needed for diverse occupations. • Invite speakers from local industries and services to discuss the use of biology principles in their work. (Waste management, water and air quality, biotechnology, pharmaceuticals, forensics, etc) • Demonstrate using newspaper and magazine articles the importance of understanding biology.